

**Listing of Claims:**

1.-8. (Canceled)

9. (Original ) A method for optimizing the operation of the recausticizing cycle in a pulp mill, comprising the steps of:

withdrawing from the pulp mill recausticizing cycle a mixture containing particulate calcium carbonate;

injecting an effective amount of a fresh calcium containing compound selected from the group consisting of calcium oxide and calcium carbonate, into the recausticizing cycle to replace the withdrawn mixture;

treating the withdrawn mixture to substantially remove contaminants in the mixture to produce a treated calcium carbonate mixture; and

recovering from the treated calcium carbonate mixture a particulate calcium carbonate having an average particle size less than about 12 microns.

10.-13. (Canceled)